

Renewable Energy Development in Utah

Highlights

- Renewable energy is the fastest growing source of new electricity in Utah, adding 207 MW in 2009
- The highest value renewable resources are located in rural Utah and can deliver valuable economic benefits.
- Utility scale projects in southwest Utah can serve major load centers in Utah, Nevada, Arizona and California.

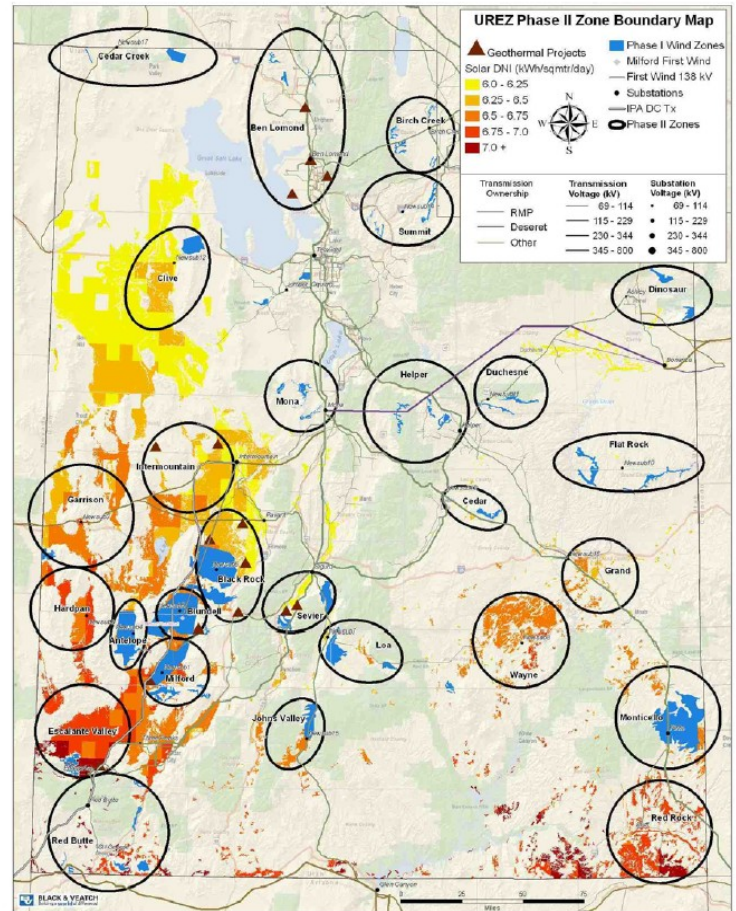
Abundant Resources

The Utah Renewable Energy Zones study has quantified the energy production potential for the following resources:

- Wind 9,145 MW
- Geothermal 1,330 MW
- Solar Electric 828 GW
- Hydroelectric 286 MW
- Biomass 7.8 MW

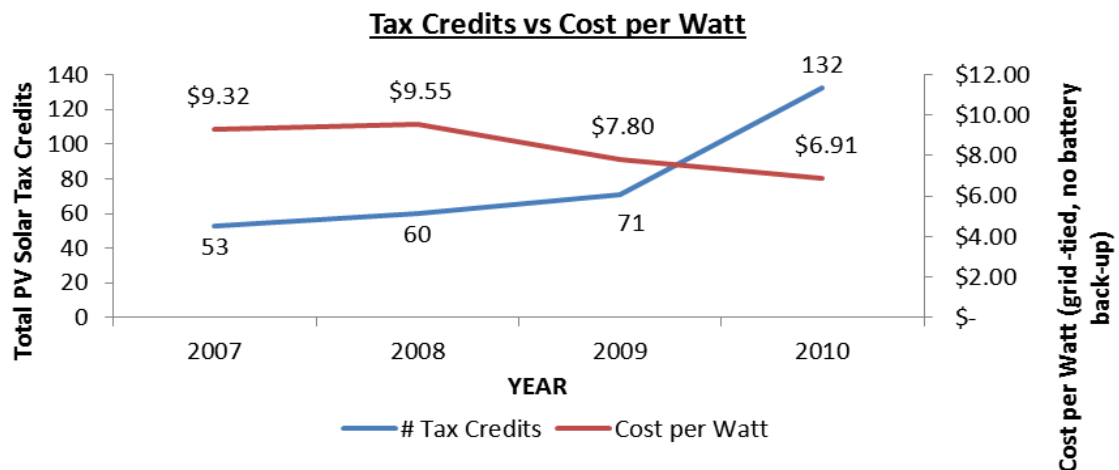
Total Peak Electricity Demand:

- 4,700 Megawatts (2011)



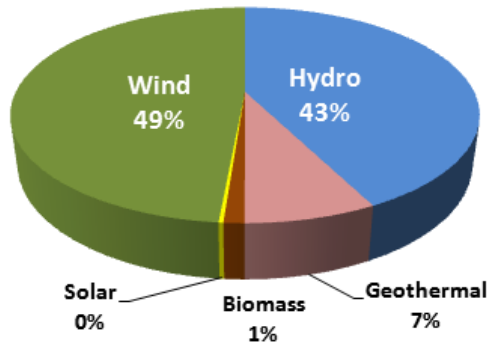
UREZ Phase II Zone Boundary Map.

Photovoltaic Price and Demand Curve



Utah Renewable Energy Utility Scale Capacity

- Wind 326.8 MW
 - Hydro 286.5 MW
 - Geothermal 50.1 MW
 - Biomass 7.8 MW
 - Solar 1.8 MW
- Total: 673 MW**



Source: Energy Information Administration – State Energy Data System, 2009

Installed Projects

| | |
|---------------------|-------------------|
| Milford Wind | 300 MW |
| Blundell Geothermal | 36 MW |
| Raser Technologies | 6 MW |
| Spanish Fork | 19 MW |
| Tooele Army Depot: | 1.5 MW |
| Camp Williams | 1.5 MW |
| Salt Palace | 2.6 MW (proposed) |
| St George | 200 kW |
| Iron County | 50 MW (proposed) |
| IKEA Drapper | 1 MW (proposed) |

State Incentives and Policies

Production tax credit: Projects over 660 kW in nameplate capacity receive \$0.0035 per kilowatt hours generated for the first four years of the project. Eligible technologies: wind, geothermal and biomass.

Sales tax exemption: Utah exempts the purchase or lease of equipment used to generate electricity from renewable resources from the state sales tax. Eligible purchases or leases must be made for or by a renewable energy production facility. All leases must be made for at least seven years. 20 kW or greater, or for expansions of 1 MW or greater.

UGREEN Transmission: The Renewable Energy Transmission Authority offers financial incentives and state support for qualifying projects to upgrade the electrical grid and help renewable energy projects gain transmission access to the markets where power is needed.

Commercial Investment Tax Credit: 10% of eligible system costs, maximum \$50,000. Since 1981, 83 commercial systems worth \$4,906,665 have been approved, and \$418,918 credits have been given. This delivers \$11.7 of investment for each credited dollar (11:1 ratio).

Residential Investment Tax Credit: 25% of eligible system cost, maximum \$2,000. Since 1981, 5,148 residential systems worth \$40.9M have been approved, and \$4,048,633 credits have been given. This delivers a \$10 of investment for each credited dollar (10:1 ratio).

Renewable Energy Development Incentive: The REDI incentive program offers a post-performance refundable tax credit for up to 100% of new state tax revenues. The incentive amount is determined by the State based on the number and salary of jobs created, the amount of new state tax revenue, long-term capi-

Outreach Research & Program

Utah Renewable Energy Zones: Utah has identified renewable energy zones that represent the most financially economical and least technology risk.

Energy Working Groups: Decision makers across the spectrum of energy development meet frequently to support efforts to develop energy resources and work through barriers. (Name the energy working groups)

Net Metering: Investor-owned and most electric cooperatives are required to offer net metering to customers who generate electricity using solar energy, wind energy, hydropower, hydrogen, biomass, landfill gas or geothermal energy (Can we identify the number or % of participants?)

Renewable Portfolio Goal: 20% of adjusted retail sales by 2025 .